[The Common Birch—*Betula alba.*]

THE BIRCH.

Coleridge conferred upon the birch the title of the "Lady of the Woods," and every one will acknowledge that its elegance, grace, and beauty entitle it to the poet's appellation. Nothing can be more light and airy than its slender drooping spray, "circling like a fountain-shower," as another poet sings, those who sit beneath its branches. The birch needs not a rich soil and sheltered situation, but is often employed as a "nurse" to less hardy trees, and flourishes on poor sands on which only the pine and larch besides itself can manage to thrive. It fears not the bleakest storms, but grows at a higher elevation than any other of our indigenous trees. Mr. Selby, in his very elegant work on 'British Forest-Trees,' says that in Scotland the birch grows at an altitude of three thousand five hundred feet. The species is very widely diffused in the temperate regions of the globe, but its true habitat is indicated by the appearance which it presents in different situations. Towards the southern limits of the zone which it occupies, in the Apennines for example, it is first found at an elevation of four thousand seven hundred and sixty feet. On Ætna it is found at about the same elevation. In Lapland it grows within about two thousand feet of the line of perpetual snow, and eight hundred feet higher than the pines, but in this situation it shrinks into a bush, and in the highest regions of the Lapland Alps it "creeps upon the ground." It is true that there are many exceptions to the theory which assigns the zones at which different trees cease to grow. Mr. Laing, in his work on 'Norway,' mentions that on the Dovre Fjelde, in latitude about 62° 25′ north, and at an elevation exceeding three thousand feet, the birch is growing up the sides of the hills in abundance sufficient to afford firewood to two farms. These trees, he says, are stunted and crooked, but "they are more luxuriant than those growing in the most sheltered spots in the county of Caithness, in latitude 58° north, and only a few feet above the level of the sea." That the birch does grow at a higher elevation than any other tree is beyond a doubt. None

like it braves so well the inhospitalities of climate: it cheers the ever-desolate scene in spite of the wild and bitter winds and piercing northern blasts, and man should look upon it with a friendly eye. In the milder parts of Sweden and Norway, and in Russia, the birch is the most common tree, after the pine. In the latter country whole forests are covered with it alone, and it attains a height of seventy feet, and two feet in diameter; but in England it does not acquire such large dimensions. In Scotland, on the shores of lochs, on the banks of rivers, and in mountain scenery, the birch constitutes one of the most beautiful features of the landscape. It emits an agreeable fragrance, especially in the spring, or at other periods after showers, and slightly at all times while in leaf.

There are four species of birch found in Europe. The common birch and the weeping birch are the best known. The most striking difference between the two is indicated by the title of the latter, which is by far the most ornamental tree, and is the one which is general in Scotland and also in Wales. Besides its character being indicated by its pendulous branches, it may be distinguished by the young shoots being quite smooth, bright chesnut-brown when ripe, and then covered with little white warts. Sir T. Dick Lauder gives a rule for ascertaining this species when young. He says "that in young weeping-birches there is a certain degree of roughness on the spray, as if it were the coagulation of a gum exuded from the pores, that never failed to indicate to us the tree which was ultimately to turn out of the pendulous variety." Some naturalists do not call the weeping-birch a variety, but a variation; but it appears to have a tolerably distinct character, and besides the differences already pointed out, it grows more rapidly and attains a larger size than the erect or common species. The dwarf-birch is found in the northern verge of the zone inhabited by the birches. Linnæus, in his 'Tour in Lapland,' says that it furnishes the inhabitants of the mountainous parts of Lapland with fuel. In Tierra del Fuego there is also a species of birch which does not exceed the size of a shrub. The common birch is subject to a curious disease, which displays itself in a manner with which most persons are familiar—the matting together of the small twigs so as to look like a bird's nest. This symptom indicates that the tree is placed in an unfavourable soil or situation.

Several of the birches which grow in the mountainous parts of India are noble trees, and are valued for their timber in the places where they grow. The bark of the Indian paper-birch is of a cinnamon colour, and its laminæ are used as a lining for hookahs. The Sanscrit name for this substance is *boorja*, a word which is referred to with many others in proof of the Teutonic languages having descended from the Sanscrit. The American birches contain several interesting varieties, some of which have been introduced into this country. The paper or canoe birch furnishes the bark of which canoes are constructed. The bark is the part of the tree most valued. Log-houses are sometimes thatched with it, and even hats are sometimes manufactured from it. Michaux describes the manner in which the bark is obtained when wanted for a canoe. The largest and smoothest trees are selected, and in the spring two circular incisions are made in the trunk, at the distance of several feet apart, with longitudinal incisions on each side. The bark is easily detached by means of a wooden wedge. With thread made from the fibrous roots of the white spruce fir the pieces of bark are sown together, over a light frame-work of wood, and the seams are caulked with the resin of the Balm-of-Gilead fir. A canoe of this kind, capable of carrying four persons and some baggage, weighs from forty to fifty pounds only. The American red birch grows in the southern states of the Union, and attains a height of seventy feet and a diameter of from two to three feet. Its bark is brown, dotted with white and slightly wrinkled. The brooms used in the streets of Philadelphia, which are said to be far better than those of Europe, are made from the tough and elastic twigs of this species; and when about an inch thick they are also used for cask hoops. The cherry-birch, sometimes called the mountain mahogany, on account of its excellent timber, which is hard, close-grained, and of a dull reddish colour, is deserving of the attention of planters in this country, and would probably be very successful in our climate. South of Pennsylvania it flourishes only on the Alleghanies. The yellow birch, so called from the bright golden yellow of its bark, is found chiefly in the coldest parts of North America, and is scarcely seen south of the Hudson.

The birch is at present as little regarded in England for its utility as in the days of Evelyn; but perhaps it has been under-rated. Mr. Selby, in the work already quoted, offers some good reasons why its cultivation would be more advantageous than several other trees held in greater estimation. First as to its uses. He says:—"A vast quantity of birch timber is annually cut up for the staves of herring-barrels; and indeed this is the principal use to which it is now applied in the north of England and Scotland, except in some parts of the Highlands, where it is still the timber used in the construction of houses, and where not only the greater part of the household furniture, but also of agricultural implements are made of it." It is also much used, together with the alder, for the soles of the clogs or wooden shoes frequently worn in the north of England and in Scotland. For the above-mentioned purposes the birch attains a sufficient size in fifteen or twenty years, whereas other trees would require a much longer period; and if some of the exotic birches which are more rapid in their growth were extensively planted, the proprietor would probably raise a very handsome rent from the soil. In England birch is generally treated as coppice or underwood. At the end of five or six years it is cut down for brooms, and if allowed to stand twice this period it becomes useful for fuel, poles, stakes, and fencing. Birch bark sells for about half as much as that of the oak. The timber is coarse-grained, and white with a shade of red; but it is imported from Russia and America, and is used in various articles of manufacture. The birch makes superior charcoal, and is extensively used in the manufacture of gunpowder, and as a crayon for artists.

The extensive usefulness of the birch in the northern parts of Europe is deserving of a separate paragraph. In some of the most inhospitable parts of Europe it is the only fuel. In Sweden it is the fuel best adapted for smelting of iron. Mr. Laing says that the bark "is used all over Norway, beneath slates, tiles, earth, or whatever may be the exterior covering of a roof, to prevent the wood beneath from rotting. All posts which are in contact with the earth, whether forming fences, bridge-rails, or gates, are always carefully wrapped round with flakes of birch bark, for a few inches above and below the ground." The oily nature of the bark enables it to resist wet, and prevents its decay. Instances have occurred in which a fallen tree has crumbled into dust, while the preservation of the bark has been so perfect as to preclude suspicion as to the ravages which it concealed. The bark has also resisted petrifaction, while the process had been complete within. In Sweden, according to Capell Brooke, the bark is used frequently "as an inner sole for shoes, and for this purpose seems preferable to leather." The Laplanders make waterproof boots and shoes of it, and a piece with a hole in the centre forms

a fashionable 'Mackintosh' amongst them. Mr. Laing also speaks of the "curious savings of ropes by birch poles." They are rigged with shrouds in small vessels, and employed as traces in horse-harness. The bark is made into cordage in various ways. The leaves serve as fodder for cattle in Norway and Sweden; and in Finland as tea. The bark is used for tanning by a very simple application, described in Linnæus's 'Tour in Lapland' (vol. i., p. 249). The peculiar odour of Russia leather is derived from an oil distilled from birch-bark which is used in the tanning process. The inner bark is reddish, and this gives the deep red colour to the sails of the fishing-boats and to the fishermen's nets on the shores of Norway. A yellow dye is obtained from the leaves and young shoots. A pleasant beverage is obtained from the birch by tapping the tree for its sap in the spring. The manufacture of this wine was an affair of some interest to the good housewives of England two or three centuries ago, and Evelyn gives a diffuse account of the process.

RAILWAY GOODS-TRAFFIC.

[Continued from page 395.]

We stated in the last article that Pickford's Railway Depôt is a scene of activity and bustle—not during the day, but in the night time. The cause of this rather unusual circumstance is to be found in the hours which the Railway Company have fixed for the departure of the goods-trains, and which are regulated so that the trains arrive at Camden Town in the evening and night. The night is the period at which the goods-trains are prepared at the Camden Town Station, for departure on the following morning; and also at which the goods are received and unladen which have arrived from the north. All the operations, therefore, will be brought under explanation, if we first describe the reception and unloading of an 'up' train, and then the making-up and dispatch of a 'down' train.

In all cases where one railroad joins another, the two companies make arrangements in common, for the dispatch of goods along both lines; and the carrier also arranges with both companies. If a bale of goods has to be brought from York to London, it passes along four railways:—the 'York and North Midland,' the 'North Midland,' the 'Midland Counties,' and the 'London and Birmingham.' But the same carrier takes charge of it for the whole distance, and opens accounts with all four companies, paying to each a toll according to the weight of goods and the extent of railway traversed. The companies lend the carrier as many waggons or trucks as may be necessary for the conveyance of the goods placed in his charge.

Messrs. Pickford have depôts at most of the great manufacturing towns in the north and north-west, at which goods are collected for forwarding to London or to other places. So far as the Birmingham Railway is concerned, goods from the north arrive in London at three different periods in the evening or night, and the carriers have to make their arrangements with reference to those periods. The first of these goods-trains comes from the district around Birmingham, the second from the Manchester district, and the third from the Leeds and Yorkshire. At the country depôts, therefore, goods are made up at different hours, according to the district in which they may be situated. In each case the manufacturer entrusts his goods to the carrier, who is held responsible for the safe delivery of them in London. The goods, when collected at the several depôts of the carrier, are conveyed in his waggons or carts to the goods-stations of the respective railways, and are there deposited by the carrier's servants, in trucks, furnished to him by the companies. The train then sets off, and whether it passes over one, two, three, or four railways, the goods remain untouched till they reach Camden Town; the necessary arrangements having previously been made with all the companies.

In this way, therefore, we will suppose a train to have arrived in London, bringing goods (passenger traffic we shall not allude to) from Birmingham and the Midland Counties. At Camden Town the goods-trucks pass off the passenger-line, into the Company's goods-depôt, and are then placed in the hands of the respective carriers to whom they may have been lent. In a similar way, too, the Manchester and other Lancashire goods arrive at a later hour, and are consigned to the carriers, the Company ceasing to have any further responsibility.

We will follow the course of those trucks which are assigned to Messrs. Pickford. Every truck is wheeled on to a weighing-machine belonging to the Company; and the weight, diminished by that of the truck, is the amount on which toll is to be paid. The truck then at once passes into the care of Messrs. Pickford's servants, who wheel it to a weighing-machine at the northern entrance of the warehouse. An entry is made in a book of the weight of the whole, the 'tare' of the truck, the nett weight of the goods, the place from whence brought, the train by which brought, and the Company to which the truck belongs; all of which forms a check to the accounts between the firm and the respective companies. The truck is then, by means of one of the 'turn-plates,' wheeled to the northern end of the platform in the warehouse, the cloth covering is removed, and the goods are hauled out by means of a crane. Here a very curious example of classification is observed. Every manufacturer puts on his bales or boxes a kind of symbol or private mark, by which the carrier knows the consignor and the consignee of every package, although the inscription may be unintelligible to others. As each package is hauled out of the truck and placed on a low wheel-carriage, one of the porters repeats aloud the inscription on it. A clerk at a neighbouring desk then refers to a book or paper, and calls out 'No. 4,' or 'No. 6,' or some other integer; a porter then wheels the carriage to one particular part of the platform, and there deposits the package. The meaning of this contrivance is the following:—when the clerk hears the inscription marked on the package, he is enabled to tell what part of London it is to go to; and directs the porter to place the package in one or other of several groups, each destined to one particular section or district of London. When we state that, by the seven o'clock train alone, there are frequently five and twenty truck-loads of goods consigned to Messrs. Pickford, the extent of the operations within the warehouse may be conceived. Each truck is drawn up to the platform, and all the goods are transferred to it.

The goods thus brought to the warehouse leave it early on the following morning; and hence the whole night is spent in loading the road-waggons by which the goods are conveyed to the London houses of business. The empty waggons are wheeled up to the eastern side of the platform, one to each group of goods; and the goods are then lifted into them by means of powerful cranes, attention being of course directed to the arrangement of the packages in the order in which they may have to be removed. A most extensive and minute system of book-keeping is observed, by clerks placed at all the sections of the warehouse; every package being entered in a variety of ways in different books, since the carrier has to deal with the consignor, the consignee, the manager of the country depôt, and one or more railway companies, in respect of every single package.

All which we have said of the Birmingham and Manchester trains applies equally to the Leeds train,

which arrives at a later hour. In this case usually about ten or twelve trucks are laden with goods for Pickford and Co., which go through the same process.

Meanwhile much has been doing in the preparation of the 'down' trains, which we must now notice. All the goods dispatched hence towards the north leave the Camden Town station early in the morning; and the carriers have to get all their trucks laden by an appointed time. During the afternoon and evening, the waggons belonging to the firm are collecting from every part of London goods which are to be forwarded to the north on the following morning. The "Castle" in Wood Street is a centre towards which the City traffic tends; while another office at the West-end is a centre for the more courtly section of the metropolis. At a later hour, all these goods are forwarded to Camden Town. Any one who may have been in the neighbourhood at night has probably seen heavily-laden waggons proceeding to this one spot. As late as midnight, and indeed long after midnight, these waggons continue to arrive, some belonging to one carrier, some to another. Let us then trace those belonging to the firm mentioned above.

The waggons are drawn up by the side of the platform, in such a position as to be easily unladen. The cranes are set to work, and all the packages are taken out. As each one is lifted out, it is weighed, and the weight and other particulars entered into a book by a clerk occupying one of the numerous temporary desks with which the warehouse is provided. A porter carries it in a low-wheeled carriage to one of several groups on the western side of the platform. As the eastern side is classified into different London districts, so is the western side into different country districts according to the trains proceeding thereto, and to the trucks furnished by the different companies. The clerk, on hearing or reading the inscription on each package, knows the group to which it should be consigned, and the porter takes it accordingly. As this plan is acted on with respect to every package, and as the operations of the 'up' and 'down' traffic are going on at one time, the warehouse presents, as the night advances, a very remarkable scene. The platform becomes occupied by an enormous mass of valuable merchandize, apparently in the utmost confusion, but really classified with almost unerring precision. All the posts on the eastern side have become the centres of town groups of goods; while all those on the western side are similarly the centres of country groups. The two classes of operations are carried on independent of each other at the same time; a totally distinct staff of clerks and porters being appropriated to each.

As soon as the railway-trucks bringing goods by an 'up' train are unladen, they are wheeled to the western side of the platform, and are then ready to receive the goods for the ensuing 'down' train. The question as to which Company's truck will be employed to carry a particular cargo of goods, will depend principally on the places to which the goods are consigned. Different trucks are laden from different groups on the platform; while the road-waggons are being laden from the groups on the eastern side. In order to ensure the height of the laden truck being less than that of the arches and tunnels through which it will have to travel, it is made to pass under the gauge mentioned in our last paper, which gauge represents the height of the lowest arch on the railroad or railroads. When the truck is laden, a cloth cover is thrown over it to protect the goods from the weather; and a printed ticket is nailed to the side, inscribed with the name of the place to which the truck is to be forwarded. The Birmingham Railway takes all the trucks in common; but where a truck has to pass from that railway to a second, and perhaps to a third and fourth, careful arrangements are made to avoid confusion.

As the trucks are filled and covered, they are wheeled out of the warehouse, upon the small railway which connects Messrs. Pickford's premises with the Company's premises; and are then placed in charge of the Company's servants, who in like manner receive the trucks which have been laden by other carriers. At six in the morning the first train leaves, and by this train part of the laden trucks are conveyed; while the remainder are dispatched in other trains two or three hours afterwards. On their arrival at the various stations and termini, the goods are consigned to the carriers' servants, who convey them to the respective destinations, just as the town waggons do with respect to the goods brought by the 'up' trains. At Birmingham, at Manchester, and most of the great northern towns there are depôts similar in principle to that at Camden Town, but much smaller.

A very pleasing feature has been introduced into the warehouse which we have been describing. As the clerks and porters are more or less employed there all night, the proprietors have provided a kitchen and a cook for dressing any provisions which the men may have provided for supper or breakfast. No man is allowed to leave the establishment to obtain refreshment, nor is he allowed to bring ardent spirits into it; but every desire is shown to conduce to his convenience in other ways. When he comes in the evening (all being engaged and paid for night-services only) he places his mutton-chop, or beef-steak, or dumpling, or potatoes, or bread and butter, or beer, or coffee, or tea, in the hands of the cook, whose office it is to prepare every man's meal by an appointed time. The kitchen is fitted up on the modern arrangement—not certainly equal to the famed Reform Club-House kitchen—but still with all conveniences for baking, frying, broiling, boiling, stewing, steaming, &c. Each party of men, at a certain hour in the evening or night, receives from a clerk a ticket inscribed with the number of men and the time to be allowed to them. This ticket is given to the cook, who prepares the men's provisions by the appointed hour, provides them with the necessary plates, cups, saucers, &c., and dispatches them out of his kitchen when their time has expired. The operations of the kitchen are going on more or less during the whole night, as different hours are given to different parties of men. The arrangements are so systematic, and at the same time so kind, that there cannot be the smallest doubt that benefit is derived both by masters and men from this plan.

A few words concerning the horses. When the town waggons have conveyed goods from the various London districts to the depôt at Camden Town for the 'down' trains, the horses are taken out, and immediately proceed down the inclined path which leads to the stables beneath. This may be at seven or eight o'clock, or it may not be till two or three in the morning; but the horses in either case proceed to rest in the stables. When the waggons, laden during the night with goods which have been brought by the 'up' trains, are ready to be dispatched from the depôt to various parts of London, the horses are taken from the stables, harnessed, and led up to the warehouse, there to be attached to the waggon.

The building in which all these operations are carried on is one of the most remarkable of its class, perhaps, anywhere to be seen. The area of the warehouse is almost exactly double that of Westminster Hall; being about two hundred and thirty feet long by a hundred and forty in width. The roof, divided into three sections, and supported by two rows of pillars, exhibits nearly an acre of slating, and a hundred skylights. The whole warehouse is vaulted beneath; and so enormous are the weights which these vaults have to support, that more than three millions of bricks were used, principally in their construction.

[Mansion at Moor Park.]

RAILWAY RAMBLES.

MOOR PARK.

CONTINUING along the same road as that we pursued on our last ramble to Cassiobury, and passing the lodge of the latter, a delightful walk of two or three miles brings us to the little country-looking town of Rickmansworth, from whence Moor Park is but a mile or so distant. One of the most rural of lanes or bye-roads conducts us to an entrance into the park, which is famous for its woods and for the undulating varied character of its surface. Before we have stepped many paces a sight breaks upon us that is truly beautiful. On the grassy slope rising on our right, and scarcely fifty yards from us, a herd of deer is grazing, with the light falling on their fair, sleek, and dappled coats. As we pause to gaze upon them, one rises here, another there, tossing their lofty antlers with a proud disdain, and walking slowly away; whilst others, apparently satisfied of the innocence of our intentions, return our glance in a sense of quiet security. As we draw nearer the house, we get a first view of it over a terrace wall decorated with vases, and presently the half-architectural end of the conservatory appears; we then turn the corner, and the building, with its stately and most imposing-looking portico, is before us. The latter consists of four immense columns, rising, with their bases and Corinthian capitals, nearly 50 feet, of a proportionable breadth, and supporting a pediment enriched in the same style. Around the top of the building is a rich cornice, and a still more noticeable feature, a large open balustrade, beautifully relieved as we now look up against the clear blue sky. The house was originally built of brick by the unfortunate Duke of Monmouth, but when it came into the possession of B. H. Styles, Esq., a gentleman who amassed a splendid fortune by the South Sea scheme, the whole was cased, as we now see it, with Portland stone, the portico added, and also two wings, one for the chapel, and the other for offices, connected with the centre by colonnades of the Tuscan order. The architect was the Italian Giacomo Leoni. The expense of the mere carriage of the stone used in these alterations and additions amounted to nearly 14,000*l*. The wings are now gone (although the conservatory forms a kind of wing projecting at right angles from the line of the house, at a few yards distance); for during the period Mr. Rous, a director of the East India Company, was the owner of the property, that gentleman having thrown up his directorship in the expectation of obtaining a place at the Board of Control under Mr. Fox's famous India bill, and being disappointed, eked out an insufficient fortune by disposing of the wings for the value of the materials.

Let us now ascend the steps of the portico, and enter the hall. This is a place of surpassing grandeur in the peculiar style which prevails through it, though the style itself is not one deserving of much admiration. The hall is square, very large, and profuse to an excess has been the expenditure on its decoration. Immense paintings, large compositions in a kind of stucco, military trophies, &c., and solid white marble doorways, no less than five in number, and with double sculptured figures of some size over the pediments, emblematical of Prudence and Piety, Pastoral and Civil Life, Plenty and Victory, Peace and Concord, Wisdom and Power,—these are the chief ornaments of the lower portion of the walls; above projects a gallery all round, with gilt railings, behind which we see five more solid white marble doorways, a range of imitation statues in imitation niches; and lastly the ceiling is one mass of paint and gilding, divided into compartments, the centre containing a painted imitation of the dome of St. Peter's at Rome. But not all this rich and elaborate display can hide the poverty of the architecture; the airy lightness and varying combination of forms in which are altogether wanting in the hall of Moor Park. But such was the

architecture of the last century. The chief pictures are those which decorate the three sides of the wall, forming a series illustrative of the story of Io from Ovid's Metamorphoses. In the first picture Jupiter is entreating Io to listen to his suit, whilst a roguish-looking Cupid stands leaning on his bow, looking on:

> "Her, just returning from her father's brook,
> Jove had beheld with a desiring look," &c.

In the second Io appears transformed into a beautiful white heifer, placed by the jealous Juno under the care of Argus, whilst Mercury, commissioned by Jove to kill Argus and set free Io, is trying to lull the former to sleep by music. Mercury leans gracefully against a tree, and Argus, sitting, bends eagerly forward to listen to his "sweet pipings:"

> "With pleasure, the musician Argus heeds;
> But wonders much at those new vocal reeds.
>
> While Hermes piped and sung and told his tale,
> The keeper's winking eyes begin to fail,
> And drowsy slumber in his lids to creep,
> Till all the watchman was at length asleep."

In the third picture we see Argus with his head dropped on the rock, and Mercury in the act of unsheathing his sword, whilst Jove looks very complacently from the clouds above. Mercury

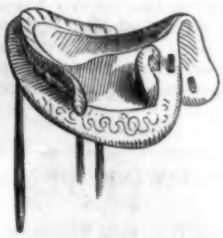
> "Without delay his crooked falchion drew,
> And at one fatal stroke the keeper slew,
> And all his hundred eyes, with all their light,
> Are closed at once in one perpetual night."

We may observe by the way, that although the poet speaks of the hundred eyes, the painter, in despair of representing any such monster, has contented himself with representing Argus with the good old-fashioned number of two only. In the last picture we see no more of Io, but are introduced to a kind of apotheosis of Argus. Juno, seated on a throne of clouds, receives from Mercury the head of her faithful but unfortunate servant, and, to commemorate his history and watchfulness, preserves the memory of his eyes in connection with her favourite bird:

> "These Juno takes, that they no more may fail,
> And spreads them in her peacock's gaudy tail:"

all which is duly represented in the picture. "These paintings," observes the author of the account of Moor Park, in the 'Beauties of England and Wales,' whose opinion we prefer giving to that of our own, "are in general well executed; and the circumstances of the story are treated with propriety and judgment. The colouring is chaste, but not brilliant: the artist is unknown." The last remark is hardly correct. In a little manuscript account of Moor Park, kept in the hall, and of course prepared under the inspection of those best qualified to judge of the correctness of such matters,

the paintings are "supposed" to be by an Italian artist of the name of Amiconi. Among the curiosities of the hall are two tall Chinese pagoda towers of porcelain, an antique chair, and a saddle said to have belonged to Cardinal Wolsey, one of the former possessors of the place.



Passing through the centre doorway of the opposite wall, we reach the saloon, where are the works painted by Sir James Thornhill, for which that artist brought an action-at-law and obtained a verdict of 3500*l*. On the ceiling is an immense painting of Aurora, copied from Guido's in the Respigliari palace, whilst four paintings of the Seasons adorn the walls. On the whole the saloon has a gaudy and heavy appearance, over which the eye passes without the possibility of relief or repose. Where the walls are not covered with the paintings, they exhibit dark grounds, garish ornaments, and profuse gildings. On a table here are two more pagoda towers, but much smaller, and formed of rice. From the saloon we pass to the grand staircase, where the first thing that meets the eye is a row of three Chinese painted figures the size of life, with, as our attendant carefully informs us, nodding heads. These Chinese curiosities are probably some of the memorials of a famous voyage, and a famous man, another of the former possessors of Moor Park, Lord Anson, the great navigator, to whom we shall have occasion again to recur. Except in the matter of the paintings on the walls, the staircase, by contrast with the richly gilded hall, looks as though the decorators were getting dissatisfied with the great expenditure involved, and had stopped short here. These paintings too chiefly form a series, illustrative of one of the fables of antiquity as told in the pages of the same Roman poet, the fable of Pluto and Proserpine.

Among the other interesting rooms of the building may be mentioned the dining-room with its stucco ceiling and figures, and deep-coved cornice, its two or three small but good pictures, and its charming views into the park; the blue drawing-room; a bed-room with a curious Chinese painting on the back of the glass, which is silvered over like a mirror; her ladyship's morning-room with a rich little Holy Family; and the drawing-room, a superb apartment, and, to our fancy, in infinitely better taste than any of the parts we have quitted. It is long, moderately broad, and sufficiently lofty; on one side a range of windows opens upon the noble park, where you look over beds of flowers in full bloom, and through long vistas of green trees, to the distant hills, now bathed in purple mist, and above is a very beautiful ceiling in compartments, where the little groups and single figures from the antique are not only in themselves beautiful, but form a delightful relief to the more pretending works we have recently noticed. They are set in a most delicate frame-work of scroll ornaments in painting and gold, which run over the whole ceiling in endless variety. The chimney-piece here is a striking object. It is supported by two full-length figures, having rock-work, coral, &c. in their hands, and along the front at the

top is a row of small figures dancing hand in hand, relieved by the rich blue colour which forms the background, the only colour about the work, the remainder consisting entirely of white marble of the most brilliant and spotless kind.

Leaving the house, we proceed to view the greatest attraction of Moor Park, the beautiful pleasure-grounds, which occupy not less than twenty-five acres, and have some interesting history attached to them. But as this history connects itself with different possessors of the mansion and grounds, we may here pause to notice what has been recorded of any moment concerning both.

[To be continued.]

ON THE LOCAL WINDS OF WARM COUNTRIES.

In nearly all countries lying within or contiguous to the tropical regions, local winds are occasionally experienced, to which, as agents producing very marked effects, the natives are accustomed to affix particular names. Such are the *sirocco*, the *solano*, the *khamsin*, the *simoom*, the *harmattan*, &c. The nature of these winds cannot be well understood unless we contrast them with the great *trade-wind*, from which all are more or less exceptions. The cool air of the polar and temperate regions has a tendency to flow towards the equator, to supply the place of that which is expanded and rarefied by the heat of the tropics; so that there is always a vertical ascent of air at the equator, and a lateral flow thereto from the poles. An inhabitant at the equator would hence experience almost constant north and south winds. But as the earth is rotating on its axis, and as the particles of air cannot at once acquire a velocity equal to that of the parts of the earth's surface over which they successively arrive in their transit, the northern and southern currents will gradually seem to acquire a motion in an opposite direction to that of the rotation of the earth; that is, both will gradually decline to the west, assuming in the northern hemisphere the character of a N.E., and in the southern that of a S.E. wind; whilst both will become more easterly as they approach the equator. From the facilities which these winds afford to navigation, they are called the *trade-winds*; and a modification of them in the Indian Ocean produces the *monsoons*, or alternate dry and rainy seasons.

Of the peculiar winds, either hot and dry, or hot and moist, which generally result from the local position and physical character of a country, the *sirocco* is one of the few experienced in Europe. It occurs in the islands and coasts in the Mediterranean, such as Italy, Sicily, and the Ionian Islands. The sirocco is generally felt in these places when the wind comes from S.E. or S.S.E., and its approach is known by the peculiar sensations felt throughout the animal system; there is a general lassitude or torpor of the muscular system, attended by heaviness and oppression, inducing an inaptitude to any exertion, either mental or corporeal; everything that is touched is damp and clammy, particularly the clothes, which feel as if they had been wrung out of water; the appetite is impaired, thirst increased, and perspiration profuse; while there is a sensation of burning heat in the chest. Independent of these effects in the animal system, Mr. Montgomery Martin * gives many curious examples of other results produced by this wind. The walls of houses, stone-floors, and pavements, invariably become moist when the sirocco blows; and yet vegetables appear as if shrivelled up for want of moisture. Wine bottled during a sirocco is greatly injured and often destroyed, and meat becomes tainted very quickly. No carpenter uses glue during the sirocco, for it does not adhere; nor will a painter willingly work at this time, for the paint will not dry, or if apparently dried by a subsequent dry wind, the wet paint oozes out. Bakers diminish the quantity of their leaven at this period, as dough is found to ferment sufficiently without it. Dr. Hennen * remarks, in reference to the action of the sirocco on man, "I have scarcely ever met an individual who was not more or less sensible to these effects; some who have felt them but slightly on their first arrival, have become exquisitely sensible to them after some time; many can foretell the approach of a sirocco some time before it begins to blow, by the peculiarities of their feelings; and there are few indeed who cannot at once decide that this wind has commenced, without making any reference to external objects: but it is by the sick and the weakly convalescent that its depressing effects are most severely experienced."

Nearly allied to the sirocco of Italy is the *solano* of Spain. It is dreaded by the Spaniards, who have a proverb that "no animal, except a pig and an Englishman, are insensible to the solano." Englishmen, however, must not be included in this exception; for the officers and troops at Gibraltar frequently suffer from the effects. After the bombardment of Algiers in 1816, the wounded English seamen were taken to Gibraltar; but before they reached there, a solano sprang up. A temporary hospital had been fitted up on the main deck of one of the ships, and all was going on well till the dreaded wind was felt, when all the invalids were affected in an extraordinary manner; the dressed wounds opened, bilious remittent fevers came on; and Dr. Quarrier, the surgeon of the fleet, was obliged to hasten the departure of the ship from the coast. There is an aqueduct at one part of the Gibraltar fortifications which is seldom opened or entered during the prevalence of the solano; for at those times the atmosphere within it is foggy, damp, and sultry, to such a degree, that the perspiration immediately bursts forth and flows copiously; whereas the aqueduct is free from vapour, is cool, and can be entered without inconvenience or risk during a westerly wind. The disagreeable associations connected with the solano in the mind of a Spaniard, as with the sirocco in the mind of an Italian, are shown by two proverbs prevalent among them. The Italian condemnation of a stupid work often is, "Era scritto in tempo del sirocco"—("It was written during the time of the sirocco"); while the Spaniard has an adage, "Non rogar alguna gracia en tiempo de solano"—("Not to ask a favour during the solano").

Passing over from the European continent to the more sultry regions of Africa, we find a remarkable wind, caled the *harmattan*, blowing from the interior towards the Atlantic. The nature of this wind has been particularly described by Dr. Dobson, in the 'Philosophical Transactions;' and from his account it appears that between the equator and 15° north latitude the harmattan blows generally from about the N.E. in December, January, and February. It comes on indiscriminately at any hour of the day, at any time of the tide, or at any period of the moon, and continues sometimes only a day or two, sometimes five or six days, or as many as fifteen. There are generally three or four returns of it every season. A fog or haze always accompanies the harmattan, and occasions the sun to appear of a mild red colour, bearable by the eye. No dew is formed during its continuance, nor is there the least appearance of moisture in the atmosphere. Vegetables of every kind are much injured; all tender plants are destroyed; the leaves of trees become so parched as to easily crumble between the

* 'History of the British Colonies.'

* 'Medical Topography of the Mediterranean.'

fingers; the branches of the lemon, orange, and lime-trees droop, and the fruit ripens without acquiring half the usual size. The panels of doors become split; veneered-work flies to pieces; the joints of a well-laid floor of seasoned wood open widely; and iron-bound casks require the hoops to be frequently driven tighter. The effects of the wind on the exposed parts of the body are singular. The eyes, nostrils, lips, and palate become dry and uneasy, and drink is often required. The lips and nose become sore, and even chapped; and if the harmattan continues four or five days, the outer skin peels off from the hands and face. And yet the harmattan is deemed salubrious; it is a healing agent to those suffering from intermitting fevers or the small-pox; it stops the progress of epidemics, and even renders difficult the communication of infection by artificial means, such as inoculation.

The most distressing and destructive of all the varieties of wind is perhaps the *hot wind* of the Desert. In central Africa, in Libya, in Syria, and in Arabia, where the soil is covered with a thick stratum of loose sand, and where the sun's rays are very powerful, the wind is often absolutely insupportable. At such time it is called *simoom*, or the "poison-wind," by the Arabs; and *khamsin* by the Syrians, from a word expressive of the period during which it prevails, viz., at the equinoxes. Volney* has given a very minute account of this simoom. He compares the heat and suffocating effect to that which would be felt when standing before the open mouth of an oven. When this wind is about commencing, the atmosphere takes an unquiet aspect; the sky becomes overcast, the sun loses his brilliancy; the air is not cloudy, properly speaking, but is loaded with small gritty particles, which penetrate everything. At first the wind is not very hot; but as its duration continues, the temperature rises. Respiration becomes short and difficult, the skin becomes dry, and the body seems consuming by a scorching heat. All objects are alike heated; iron, stone, even water, fail to yield any cooling effect. The inhabitants of towns and villages shut themselves up in the houses, while those in the open Desert take refuge in their tents, or in pits dug in the ground. "If this wind lasts more than three days," says Volney, "it becomes insupportable." Miserable is the fate of those travellers who are surprised by such a wind at a distance from any asylum! They feel the full effects, which frequently end in death. When the hot blast is passing rapidly, the heat is so increased as to take away life almost instantaneously. This death is a true suffocation; the lungs, respiring in a kind of vacuum, enter into convulsion; the circulation becomes disturbed in the vessels; the blood flies from the heart to the head or the chest; and hence ensues hæmorrhage at the nose and mouth after death. This wind attacks especially men of a full habit of body, and also those whose muscles are weakened by fatigue. The only mode of checking these violent effects is to cover the mouth and nose with a handkerchief; the camels bury their mouths and noses in the sand, and there keep them till the violence of the blast is abated. Another quality of this wind is its extreme dryness. If water is thrown on the floor of an apartment, it is evaporated immediately; and by the extreme dryness of the air, plants become shrivelled up and reduced to fragments. This thirst of the air for moisture, so to speak, increases the effect of the wind on the animal frame, by evaporating too rapidly the perspiration exuding at the pores.

The explanation which Volney gives of the cause of these hot winds is in principle doubtless correct. They are always found to occur in countries where deserts abound, and where the air, meeting neither with brooks, nor lakes, nor forests, becomes heated by the action of a nearly vertical sun, and by reflexion from the sandy soil. When, from any atmospheric cause, this mass of air is set in motion, the phenomenon of the hot wind ensues, and particles of scorching sand are wafted along with the wind itself.

Those peculiar winds which sometimes attack a ship at sea, and known as *hurricanes, tornados, typhons*, &c., are more or less similar to whirlwinds, and depend on sudden changes in the condition of the atmosphere. In mountainous countries, local winds assume various peculiarities according to the physical features of the district. Thus, at the Cape of Good Hope there are four remarkable mountains, called Table Mountain, the Sugar-Loaf, James Mount, and the Devil's Head. In the summer season Table Mountain is sometimes suddenly covered with a white cloud, called by the sailors the *table-cloth*, from its flat and white appearance; and when this cloud seems to roll down the steep face of the mountain, it is a sure indication of an approaching gale of wind from the S.E., which generally blows with great violence, and sometimes continues for one or two days. On the first appearance of this cloud, the ships in Table Bay begin to prepare for it, by striking yards and topmasts, and making everything as snug as possible. When the cloud appears, the sailors are wont to say that the "Old Gentleman" is about to breakfast, dine, or sup, according to the hour when this "table-cloth" is spread.

* 'Voyage en Syrie et en Egypte'

Wild Flowers.—One characteristic of our native plants we must mention, that if we miss in them something of the gorgeousness and lustre of more tropical flowers, we are more than compensated by the delicacy and variety of their perfume; and just as our woods, vocal with the nightingale, the blackbird, and the thrush, can well spare the gaudy feathers of the macaw, so we can consign the oncidiums, the cactuses, and the ipomæas of the Tropics, for the delicious fragrance of our wild banks of violets, our lilies-of-the-valley, and our woodbine, or even for the passing whiff of a hawthorn bush, a clover or bean field, or a gorse-common.—*Quarterly Review, No.* 139.

Latitude popularly explained.—We have shown, that in consequence of the *spherical* surface of the earth, the Polar Star appears to a person travelling due North or South to ascend or descend in the heavens in proportion to the space passed over. Upon this fact a most important principle in geography is established, namely, that the latitude of a place in the Northern hemisphere always corresponds to the altitude of the Polar Star; and hence, to ascertain our distance from the Equator, in the Atlantic Ocean for instance, we have only to take the altitude of the Polar Star, and our latitude is determined. If the Polar Star, for instance, is 10, or 20, or 53 deg. above the horizon, we may conclude, with perfect certainty, that our distance from the Equator is 10, or 20, or 53 deg., as the case may be. To make this perfectly clear, suppose we were at the North Pole of the Earth, our distance from the Equator, or *latitude*, would be 90 deg., and the distance of the Polar Star from the horizon, or its *altitude*, would be 90 deg. also; for in that position it would appear in our *zenith*, or right above our heads, and consequently 90 deg. above the horizon. Now, suppose we travel 10 deg. in the direction of the Equator, or due South, our distance from the Equator would be diminished from 90 to 80 deg., and the Polar Star would appear to have descended in the heavens in the same proportion, that is, our *latitude* and its *altitude* would be each 80 deg. If we travel 20 or 30 or any number of degrees under *ninety* due South from the Pole towards the Equator, our latitude and the altitude of the Polar Star will be found to decrease in proportion. *Half-way* between the Pole and the Equator, for instance, our latitude will be 45 deg., and the altitude of the Polar Star 45 deg. also; and if we travel to the Equator there will be *no latitude*, because we are no distance from it; neither will the Polar Star have *any altitude*, for it will in this case be on the horizon. This simple and beautiful principle in geography not only enables us, even in the middle of unknown seas, to ascertain our position on the Earth's surface with regard to the Equator, but it also furnishes us with the means of measuring the surface and determining the magnitude of the Earth.—*Sullivan's Geography Generalized.*